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ABSTRACT

The 1979 report of a working group of the World Health Organization (WHO) in cooperation with the West German government, on the design of training in health planning and management in the European region is presented. The working group consisted of 15 temporary advisers from 11 countries, in addition to WHO staff and a consultant. The group was asked to: review experiences gained in a number of European training programs in health planning and management; determine training objectives for specific target groups; discuss training methods and curriculum development as related to each specific objective; and formulate recommendations for action at national and international levels. European countries in general are faced with the problem of how to make the best use of limited resources for their health services. The problems of developing health planning and management in two European countries, the United Kingdom and Romania, were reviewed, along with WHO activities at the global level and in the European Region. Attention was directed to identifying qualities of health managers who administered services as well as those of policy-makers and higher-level administrators, and the needs of the primary care general practitioner and the nurse at the first level of nursing management. Teacher training was considered in light of national program development and a national commitment to health management training, and a strategy that could be applied nationally and internationally was developed. Four working papers that served as background to the working group's discussions are appended. (SW)

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ED210951

THE DESIGN OF TRAINING IN HEALTH PLANNING AND MANAGEMENT

Report on a Working Group

Berlin (West)
3-6 July 1979

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WORLD HEALTH ORGANIZATION
Regional Office for Europe
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1. Introduction

The lack of systematic training for health planning and management in many countries of the WHO European Region is an important cause of the slow and patchy progress of these aspects of health services administration. Experience is being built up, however, by a variety of national and international institutions and organizations, and the Regional Office has been promoting a regional approach to the subject. The WHO Working Group on the Education of Managers in Health Services,[a] held at Düsseldorf in 1977, provided an overview of the problem and agreed on a series of principles for the development of education in health services management. As a follow-up to that meeting, the Regional Office, in collaboration with the Government of the Federal Republic of Germany, convened another working group, in Berlin (West) from 3 to 6 July 1979, to discuss the design of training[b] in health planning and management in the European Region.

This Working Group consisted of 15 temporary advisers from 11 countries, including physicians, social scientists, economists, public health administrators, a nursing manager, an architect and a mathematician; they were joined by a WHO consultant and 4 WHO staff members. The Group was asked specifically to:

(1) review experiences gained in a number of European training programmes in health planning and management;

(2) determine training objectives for specific target groups;

(3) discuss training methods and curriculum development as related to each specific training objective; and

(4) formulate recommendations for action at national and international levels.

The meeting was expected to provide an input to the European Conference on Health Planning and Management Systems, provisionally scheduled for 1981.

As background to the Working Group's discussions, three working papers were prepared and distributed to the participants; they are attached to this report as Annexes II, III and IV. Another paper described and analysed the Regional Office's activities in the teaching of health planning during the period 1969-1978.

The meeting was opened, on behalf of the Federal Minister for Youth, Family Affairs and Health of the Federal Republic of Germany, by Mr H.A. Zenk of the Ministry's International Relations Section. Dr W. Fritsche, Regional Officer for Health Manpower Planning and Management, WHO Regional Office for Europe, conveyed to the participants the greetings of the Regional Director, Dr Leo A. Kaprio. He stressed the importance of stimulating and helping national initiatives in training in health planning and management and expressed the hope that the Working Group would continue the work begun in 1977 at the Düsseldorf meeting.

Professor E. Kröger was elected Chairman and Mr C. Kleiber acted as Rapporteur.

2. General Problems

European countries in general are faced with the problem of how to make the best use of limited resources for their health services. This is the fundamental problem for health service managers, i.e. all health professionals with responsibility for the use of resources other than their own time and effort. Education and training in health planning and management is designed to make health workers aware of the issues and problems involved and to enable them to deal in a professional way, according to their various responsibilities, with the use of resources.

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[a] WHO Regional Office for Europe. Education of managers in health services: report on a Working Group. Copenhagen, 1978 (document ICP/HSD 043).

[b] The topic specified for the working group referred to "training", whereas that for the previous meeting had referred to "education". However, the group did not distinguish between education and training, and the terms are used without distinction in this report.

2.1 Definitions

The Working Group reviewed the principal definitions and concepts contained in the report of the Düsseldorf working group.[a] Three of the definitions are reproduced here for the purposes of the present report.

Health care management

This was defined roughly by the 1977 working group as "a purposeful and efficient use of resources". It "basically seeks to satisfy and balance the interests of all the participants in an organization: the clients, the workers in the organization and the broader environment to which the organization relates". Management "aims at optimizing quantitatively and qualitatively the output by the organization of these products or services". With reference to health services, the application of these concepts and principles is the scope of health care management.

Health care planning

According to one definition, health care planning is part of health care management, i.e. one stage of the management process. According to another, management aims at improving a present situation and planning aims at improving a future situation. In this sense, planning may be defined as the management of the future. Both the above definitions are valid.

Health care manager

"Basically, a manager can be defined as a person responsible for the deployment of resources other than his own time and energy." Health managers comprise a wide selection of staff; they include physicians, ward nurses, hospital directors, public health administrators, managers of local health insurance schemes and anyone who deals with health policy matters, whether at the level of operation of the health services or at the administrative and policy-making level. Two categories of manager/administrator can be distinguished: generalists and specialists in, for example, finance, systems analysis and management of human resources. Generalists include three subgroups: chief administrators at national, regional or interorganizational level; intermediate administrators who manage specific situations or programmes; and unit administrators who run departments within institutions and parts of these programmes.

Participants felt that the above definitions did not adequately reflect the complexity and specificity of the health field. A specific theoretical base for health management had still to be developed. Health services research and the extension of management practice should increasingly provide this base.

2.2 Management training in European countries

A review was made of the problems of developing health planning and management in two European countries, the United Kingdom and Romania, and of WHO activities at the global level and in the European Region. The following problems became apparent:

- health planning and management is still only intermittent and discontinuous and too rigidly confined to the health sector; also, it has little political support;
- consequently, it has little impact on health practice, especially in western Europe;
- the scope of training programmes is usually rather narrow and too often reflects only the needs of certain categories of health professional (physicians, hospital administrators, etc.);
- training objectives are too academic and geared to obtaining academic qualifications rather than providing experience in the human and social aspects of health management;
- there is excessive dependence on conventional courses and teaching methods, while too little use is made of the kinds of educational strategy that would suit the circumstances and needs of the different kinds of health worker who have management responsibilities;
- one new trend which must be regarded as positive - community participation in health planning on a more or less formal basis - complicates the hitherto orthodox approach to health planning and management as well as education and training in the subject.

The Working Group identified the following three main problem areas or uncertainties.

(a) Uncertainty about the disciplines that constitute health management.

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[a] WHO Regional Office for Europe. Education of managers in health services: report on a Working Group. Copenhagen, 1978 (document ICP/HSD 043).

(b) Problems relating to the social and political aspects of health planning and management. In educational terms, it is necessary in particular to enlarge the vision of the staff of a service, unit or programme so that they obtain an understanding of the objectives and motivations of others in different activities. It is becoming essential everywhere for each manager to understand how his functions relate to the purposes of the total system in which he works. Training programmes in health planning and management must adopt this as a general objective.

(c) Health planning and management is often perceived as something threatening, especially by persons who are affected by the consequent changes and have not taken part in planning.

These problem areas must be taken into account in training programmes. In effect, the teacher is asked how to improve the functioning of a manager in a given situation. The Working Group suggested that:

- the manager must become more professional in management;
- he must understand well the system in which he functions, so that his decisions are not contradictory or counterproductive; and
- he must learn to be an effective agent of change with a good understanding and skill in the use of group dynamics.

The members of the Working Group agreed to deal with these points in three subgroups, under the following specific headings.[a]

(1) The scope of health management functions: what skills are needed by health managers and how can these skills be acquired?

(2) The minimum managerial requirements for health care practitioners: how can health care workers be made more cost-conscious and community-oriented?

(3) European cooperation in training teachers for health management: how can the WHO Regional Office cooperate with Member States for this purpose?

3. The scope of health management

What skills are needed by health managers and how can these skills be acquired?

The meeting noted that the 1977 working group in Düsseldorf had identified three main types of health manager - patient care managers, institutional managers and multiorganizational managers - on a continuum extending from patient interaction to the top administrative level of the health care system and forming a mix of managerial generalists and specialists. One subgroup of participants considered different approaches to designing training programmes for these main types.

It focused its discussion on aspects of health care planning and management that are sometimes characterized as intangible and highly political elements but that, nevertheless, largely determine the acceptance and application of general principles of planning and management. The Group considered mainly, under the following headings, the qualities required of health managers who were concerned with running services as well as of those concerned with policy making and higher administration:

(1) the characteristics of managers;

(2) effectiveness in health management;

(3) the skills of management;

(4) training objectives and methods.

3.1 The characteristics of managers

There are many different types of health manager: clinicians, community physicians, hospital administrators, managers of local health insurance schemes, heads of physicians' associations, civil servants and politicians at the highest level of decision making, to name a few. Each country can add other categories to this list.

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[a] A further dimension of education for health management was introduced by one of the members of the Working Group and discussed separately by the Group (see Annex I).

Characteristics of managerial roles are:

- the degree, scope and level of authority;
- the degree, scope and level of participation in formulating and implementing policy;
- the degree, scope and level of delegation of responsibility/authority;
- the number of persons the manager influences and controls;
- the scope of resource utilization.

Different types of manager

Health service managers at the health care level are different from those who influence national or international health care systems. The latter influence indirectly, and at times unconsciously, the health services system and the politicians whose social and economic decisions can strongly affect the health services system. These different types of manager need quite different skills, and their training must accordingly be different.

"Shift of responsibilities"

According to the political analysis of how societies function, it is important to understand the concept of "shift of responsibilities". Political policy makers delegate decision making to high-ranking executives, who in turn delegate to professionals. As a result of this lack of decision making and the reluctance to take responsibility, this "shift" takes place in two directions (conflict avoidance). Consequently, a technical services manager often has to assume responsibilities and duties for which he is ill-prepared. This complicates and sometimes reverses the roles of the health service manager and the health policy maker and, therefore, affects the definition of training requirements.

Management talent

To what extent is management ability inborn and how far can it be acquired by learning and practice? To answer this question, it is necessary to examine in detail the managerial recruitment and promotion practices of large enterprises and to analyse what is considered effective leadership. This would show which skills can be acquired by training and which are related to personality and innate intelligence; the outcome should affect the selection of managers and the nature of training programmes.

Health management and professionalism

Compared with other managers in industry and business, health managers have a special problem. Professional groups are often very powerful. Backed by strong associations and peer groups, physicians in particular do not easily accept decisions made by managers who are not medically qualified. At times, even physicians who have become professional managers and leave clinical practice are no longer recognized professionally by their clinician colleagues. Health management is quite different from management in other areas, and some aspects of management training designed for other professionals might, therefore, be unsuitable for health managers.

3.2 Effectiveness in health management

Defining effectiveness as the degree to which goals and objectives are fulfilled, it is important from the point of view of management strategy to be aware of the actual socioeconomic effects of the health sector, especially in terms of increased employment. Health services in industrialized countries contribute to broader national and local goals than health care alone. Even at a micro-economic level, health care workers and managers have their own motivations and personal objectives which their health care actions are used to satisfy.

These goals sometimes conflict with those of improving the health of the people. They are sometimes given precedence over the primary goal of health services. Cost-awareness is at least as important for health policy makers as it is for health care practitioners.

Since there are conflicting and competing goals, it is not enough to concentrate on purely technical skills for health service managers (how to manage a unit, how to ensure the proper functioning of the micro-system, how to improve practical management tools); it is important that they understand the sociopolitical environment very well and become skilled in dealing with it.

3.3 The skills of management

Preparing training programmes is no mechanical task. Each country must have its own educational strategies for improving its health services system and the health of the population.

According to the types of manager to be trained and the level and context of decision making, the skills must include certain priority skills, and account has to be taken of the capacity of different types of planners and managers to learn certain skills.

A tentative list of skills

Bearing in mind the most important dimensions of managerial effectiveness, the subgroup considered that, as a matter of high priority, the manager should be able:

- to understand and be able to take into account the total system of decision making (especially the influences of outside pressures, of other organizations and of legislation) and not only the direct backward and forward effects of his decisions ("impact assessment and understanding");
- to analyse the constraints that will affect his decisions;
- to make sound decisions even when he knows they will provoke negative or critical reactions;
- to assess continuously his own limitations and weaknesses as well as his abilities.

In places where there is a distrustful and competitive atmosphere and it is reinforced by staff policies, training alone, without a change in the atmosphere, is unlikely to result in the application in practice of the above skills.

A tentative system of skills

Fig. 1 and 2 illustrate schematically a tentative outline of the body of knowledge and disciplines that comprise management and from which trainees should select the elements of management technology they require.

A tentative model of skills

Management responsibilities relate to the achievement of tasks, the direction and coordination of the activities of groups or teams and the professional development of individuals in the group.

Fig. 1. The five interrelated elements: governing and management require the coordination of the five elements

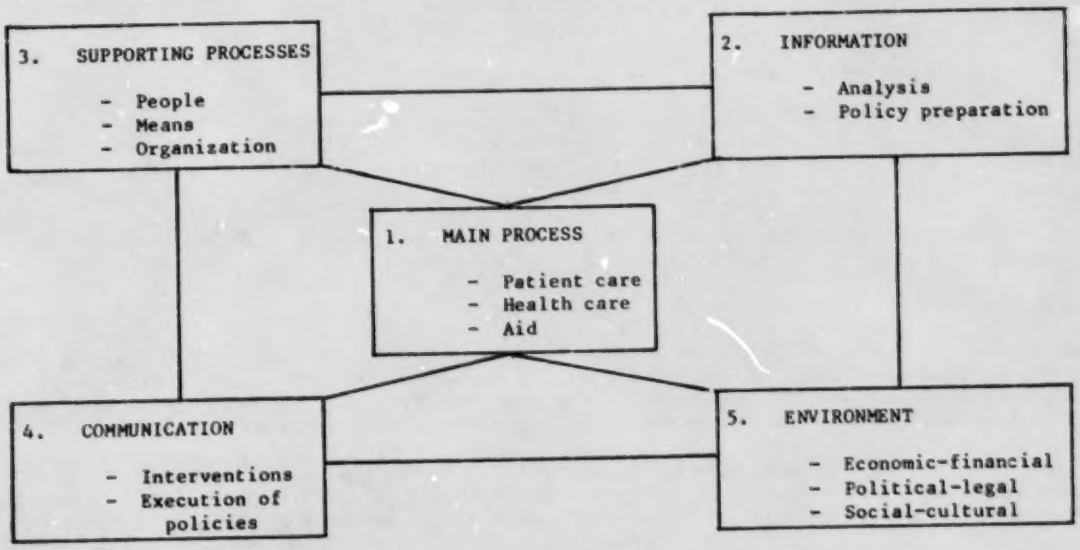
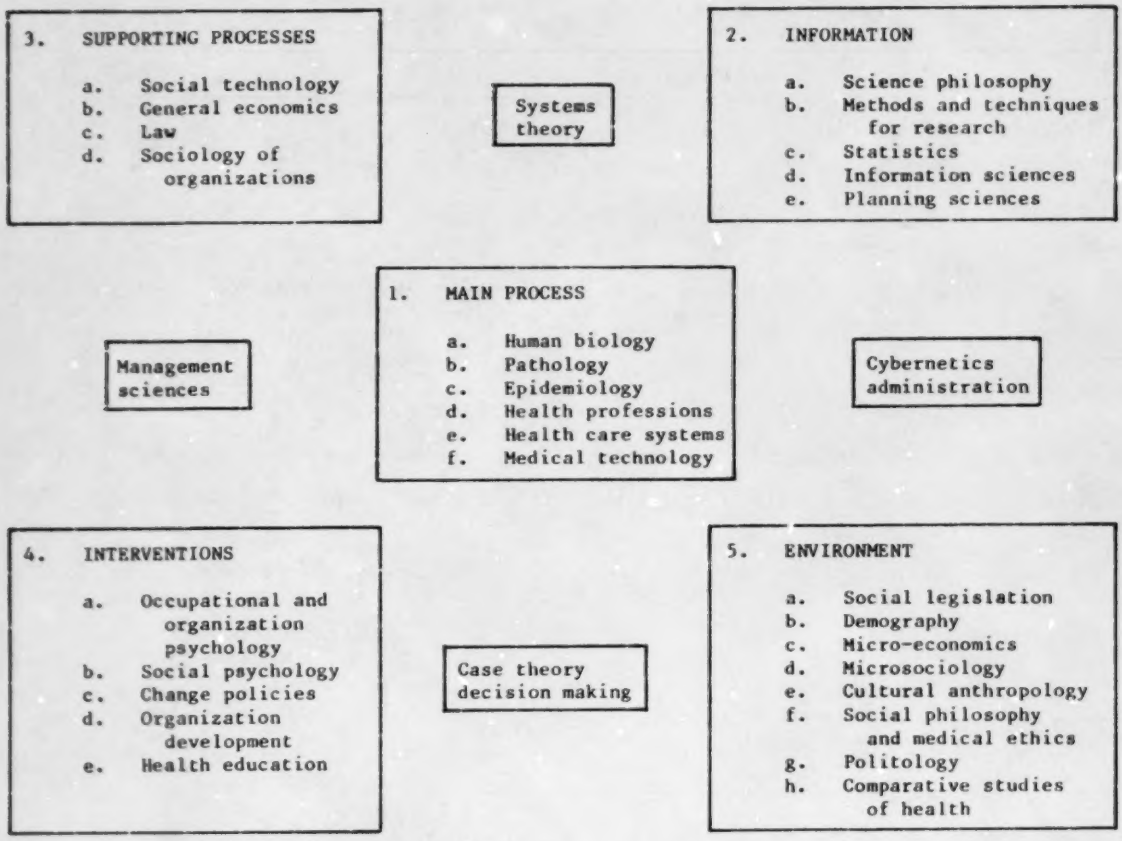


Fig. 2. The topics



The process of management, directed by policy and leadership, uses people, money and material, as well as time, management methods and motivation.

The manager must apply the specific skills of setting objectives, planning, organizing, staffing, leading, monitoring and evaluating. These skills refer especially to the local level of management. Whether or to what extent they apply in the wider social and political context in all countries is not clear, and this question needs to be studied.

3.4 Training objectives and methods

With regard to the complex and often unclear external influences on health management decisions, education and training should enable planners and managers to increase their personal effectiveness and abilities, with specific emphasis on problem solving and decision making. In this sense, training has two related functions:

- to create an awareness of strengths, opportunities, constraints and barriers to decision making; and
- to enable the health manager to generate an atmosphere of optimism and trust on the assumption that in all societies there are ways of improving health services.

A frequent problem in designing educational programmes in health management is that they do not reflect the complex and often unstated goals and outputs of the health services system that are not directly concerned with disease and health or basic health policy, or how health care and other health activities are often used as media for personal motivations and objectives.

Training methodology must depend on the objectives of training, the characteristics of the target groups, the competence of the teachers, the training resources available and the conditions in which the trainees will later function. The subgroup took two examples.

Health services managers

The Düsseldorf working group had pointed out that education in management for health professionals was largely neglected and tended to be inadequate in relation to the management needs of today's health services.

To enable health service managers to function better, they need:

- basic skills (understanding and applying the principles of political economy);
- skills specific to health services management;
- specialized skills needed for special functions and tasks.

Since skills are acquired by practice under supervision and refined by continuing practice, the methods of training must provide opportunities and settings where practice and supervision can be carried out in both actual and simulated settings. This should be complemented by the "dialectical method", which should give the trainee manager a good understanding of a national planning and management process and of the political and social constraints under which managers function.

Health policy makers

Health policy makers are usually politicians and high-level administrators, of whom some are also health professionals but many are not. The Working Group considered that policy makers with little or no experience in health services administration needed facilities for learning rather quickly about the factors that would affect their work and decisions. These would be mainly:

- knowledge of the structure, process, outcome and impact of health services and health policies;
- cost-consciousness;
- knowledge of existing resources, their distribution and allocation;
- awareness of the gap between legislation and implementation and of the performance gap between promises and realization;
- awareness of the attitudinal changes that may be necessary in themselves and in health care practitioners, local community leaders and politicians if health services are to be managed rationally;
- awareness of the effects of withholding information.

Policy makers may also have to learn personal interaction skills; they can learn them not in isolation from their work or on the basis of written wisdom, but by "confrontation" methods, interactive and reactive in essence, based on group dynamics.

Another method is organization development (OD). In OD, institutions set themselves the task of ascertaining in depth what they are achieving (performance analysis). The outcome is compared with standards that have been laid down previously. Differences between outcome and standards are discussed and steps are taken to improve the organization and its work, either by training in behavioural skills or by means of administrative procedural revisions.

To undertake organization development, an institution needs an independent consultant trained in this particular type of management consultation.

4. Minimal requirements for health managers

How can health care workers be made more cost-conscious and community-oriented?

A second subgroup of participants decided to approach this question by discussing the needs of two generic types of provider:

- the primary care general practitioner, and
- the nurse at the first level of nursing management.

Their roles were discussed under a series of headings that seemed likely to provide the information needed to identify training needs:

- the position of the workers in the health care system, including relevant features of the health care environment;
- the role's main links with the management system;
- the characteristic management decisions and problems attached to the role;
- the characteristic attitudes of the health worker towards management matters and structures, and also the previous knowledge of management he could be assumed to have.

4.1 The general practitioner (GP)

The place of the GP in the health care system

There is much variation among European countries in respect of methods of remuneration, health service financing and organization, the size, composition and functions of the primary health care team, and the extent to which the team's work is regulated managerially. There are also certain common features: a GP's work consumes substantial resources directly, and indirectly initiates the consumption of even greater secondary care resources. There is, therefore, a *prima facie* need for "cost-consciousness".

More generally, the tension between formal health care management systems and the trend towards greater public participation in health care decision making create special problems for the GP.

The role's main link with the management system

Links with the management system vary considerably; they are influenced, *inter alia*, by whether the GP is paid on a fee-for-service basis or receives a salary.

Management decisions

Key decisions with managerial implications include prescribing and hospital referral decisions.

Characteristic attitudes

Attitudes to "management" and knowledge of the management system vary from country to country. Characteristically, GPs are said to be mildly hostile to health care bureaucracy or reluctant to accept it (the more doctors control the system, the less they dislike it). There appears to be a conflict of values between the practitioner and the administrator, which certain pressures on the practitioner (e.g. from the pharmaceutical industry) do little to resolve.

Training the general practitioner

Training should broaden the GP's view of the continuum of care and the cost implications of different aspects of care. It should include instruction in the use of the health and social services and other resources, in comparative costing and in the application of other research results.

Essentially, the training of medical practitioners should be in their own hands, with assistance from health administrators, consumers and the funding agencies, because the need is more to change attitudes than to inculcate management skills, and for clinicians to obtain a basic knowledge of the system. The skills they need most are "social" skills, e.g. for committee work and, as a lower priority, being able to apply certain economic concepts.

Management training (perhaps too narrow a term) for general practitioners should be seen to complement clinical training. It is not something that takes place only once; rather, it is a continuous learning experience related to needs and building on experience. The medical school curriculum should, therefore, provide an opportunity to learn basic facts and principles of social and organizational issues. Afterwards, the continuing education system should be able to provide the educational support that practitioners need to be able to use sound managerial knowledge and skills in their different spheres of work.

In some countries, changes in the health care system are likely to be needed before management learning can be systematized. A system that "rewards" lengthy stays in hospital is incongruent with cost-consciousness on the part of practitioners.

4.2 The ward sister/head nurse

In some countries (e.g. the United Kingdom), nurses have a strong say in management at all levels. In others, the managerial authority of the ward sister/nurse-in-charge is called in question. Yet even where the nurse lacks formal authority, she can exercise considerable informal influence.

The Group considered the management training requirements of the ward sister/head nurse under the same headings as it did those of the GP and identified a range of training needs in communication and administrative skills.

A particular need is to increase the hospital nurse's knowledge of the total health care system, including the technical capacity of specialist hospital services. Acquiring organizational competence may have a higher priority than orthodox management training: ward sisters, as well as other health institutional staff, gain more from learning about the ward and the problems of particular paramedical departments and other disciplines within the hospital than from formal didactic teaching in management theories. Training in this field should recognize the limitations as well as the potential of nursing management. As in the case of medical practitioners, there is no point in training nurses in areas where they have no influence.

4.3 Management training for health care workers in general

Hierarchical forms of management diminish the managerial role of health workers and fewer of them have management functions. Health care systems must be responsive to the increasing pressure from the public to be allowed a say in health service decision making. Arrangements are needed for direct contact between consumers and health workers if both sides are to play a full part in the health care system.

Training in management will not improve a health service unless the management system is sensitive and adaptable to demographic, economic, political and other changes that affect the health care system. Also, its control mechanisms should be understood by and acceptable to the health workers (e.g. general practitioners are more likely to be cost-conscious if their budgetary responsibilities are well defined), and their managerial role should derive naturally from their professional work - it should not represent additional responsibilities. Management training should not distract practitioners from their essential health care responsibilities.

Under such circumstances, clinical practitioners and others are likely to become interested in cost and community issues. Training should be concerned more with increasing knowledge and changing attitudes than with inculcating particular skills, and it should be organized and conducted mainly by the health workers themselves rather than by "outsiders", who, however, can make important contributions to it.

As a result of a training programme to increase cost-consciousness and community-orientation, health care practitioners would be expected to be able to practise competently within limitations imposed or implied by a national policy for allocating resources to health and taking into account the total calls on the health budget, how the health care system functions, how resources are planned and allocated, and the actual and potential roles of informal health care "systems" and of other national sectors in health maintenance and promotion.

The particular management skills to be acquired should include being able to practise efficiently in the health care team, to work effectively with "consumer" organizations and with other local services, to evaluate and improve their own effectiveness and efficiency, and to discharge their budgetary responsibilities competently.

The training programme should be geared particularly to opportunities for local initiative. It should rely heavily on the active participation of the practitioners, making use of their local experience, and of local data on unit and institutional performance. Problem-solving methods of learning skills based on actual circumstances should be used (see Annexes III and IV for a discussion on and examples of active learning modules).

5. European cooperation in training teachers for health management

In which ways can the WHO Regional Office for Europe cooperate with countries in training teachers for management education?

The third subgroup focused its attention on teacher training as an important strategy and discussed it in the light of national programme development and a national commitment to health management training. A combined strategy of institutional and teacher development was outlined that could be applied nationally and internationally. The following issues were considered.

5.1 Areas of concern

Teachers should be trained in the following broadly defined areas:

- substantive management disciplines;
- educational technology (teaching teachers how to teach); and
- promotional abilities (to enable teachers to persuade decision makers of the need for management training).

The need for teachers to be trained in substantive management disciplines was considered essential for a satisfactory performance of the other two groups of functions.

5.2 Management disciplines

The subgroup then outlined the general content of management disciplines that could be grouped in broad logical entities. The management process is indivisible, its different disciplines overlap and show gaps, but manageable and coherent "packages" can be prepared to enable institutions to design and conduct training programmes. The following groups of disciplines were suggested.

(a) Health economics

Knowledge and competence needed:

Health and economic development
Health budgeting and finance
Methods of economic evaluation
Cost control
Economic indicators in health services

Disciplines

Political science
Econometry
Management theory

(b) Health services and manpower planning

Knowledge and competence needed:

Strategic and tactical
Decision-making process

Disciplines

Operational research
Systems approach
Communication theory

(c) Analysis and development of a health system

Knowledge needed:

The system's characteristics
The sociopolitical environment
Health and health-related legislation
Behaviour of health care practitioners, patients and the public in general in relation to disease and health, and to health care and related institutions
Financing (sources and methods)

Disciplines

Policy analysis
Political science
Behavioural sciences
Interorganizational theory

(d) Analysis and development of health organizations

Knowledge needed:

The health organization's goals, personnel, resources, technology and structure
Cost control
The social, political and economic environment
Organizational processes and control
Behaviour of individuals, teams and departments

Disciplines

Industrial psychology and sociology
Management and control theory
Communication theory
Organizational theory
Decision theory

(e) Personal management skills

Communication
Task orientation
"Networking"
Cooperation
Motivation
Group dynamics
Leadership

(f) Quantitative methods for problem solving

Knowledge needed:

Problem identification
Problem solving
Model building

Disciplines

Statistics
Demography
Epidemiology
Operational research
Systems analysis

5.3 Approaches to designing training courses

Annexes II, III and IV deal in varying degrees of detail with the organization and design of training programmes and modules. The subgroup considered additional approaches, particularly for countries with little experience in training for management.

Two such approaches were suggested:

(a) selecting specialists in specific areas of concern (items (a) to (f) above) and organizing short workshops (e.g. of one week):

- to prepare a statement on the "state of the art" in the area of concern;
- to design learning modules for the various groups of disciplines (which would include statements of learning objectives and recommended methods of learning and evaluation);

(b) drawing teachers of several disciplines from courses and/or prospective courses from one or several countries in order to teach in a longer training course, during which they would share their experience and, on that basis, formulate an integrated management training programme.

5.4 WHO collaborating centres

The function of WHO collaborating centres would be to prepare learning material in their special areas of responsibility, both individually and with other centres, to meet the training needs of different target groups. They would form a network, the activities of which would need to be coordinated; the WHO Regional Office could have an important coordinating role. A corresponding long-term management programme designed by WHO could be very useful.

The material should be disseminated through the national channels at the disposal of the WHO Regional Office, through the collaborating centres' own channels and through national and international professional associations.

Intercountry collaboration is needed to ensure that the learning/teaching material suits different circumstances. Collaborating centres would also be responsible for testing and evaluating the material produced by them and for improving it continuously. The preparation and use of learning material is a continuing process because the material should change according to different needs and stages of progress and be modified by feedback from its use. Its use must, therefore, be constantly monitored and the content and methods updated accordingly.

These activities require a progressive development, with a centre being organized first which would provide the initial impetus, coordinate similar developments and help to set up new centres. Developing networks of training institutions and/or programmes within and among countries was considered an important way of promoting synergism and cross-fertilization.

5.5 National responsibility for management training

Each country's training programmes and the strategies and methods it uses must suit the needs and conditions of the country rather than be merely a copy of another country programme. There is no universal pattern of management training, although there is a growing body of knowledge on which countries can draw. Steps that countries can follow in organizing national programmes are:

(a) diagnosis: "diagnostic examinations" of the health services:

- to highlight the main management strengths and weaknesses and to determine needs;
- to identify health service staff who have management responsibilities;
- to describe existing training activities and facilities and assess their potential for development;
- to assess management training facilities outside the health sector, with an estimate of their potential for health management training;

(the "prescription" for management training that follows the "diagnosis" must take into account national health priorities, policies and plans; conversely, national health plans as a priority should identify management needs and resources to meet them);

(b) commitment: the formulation of a national policy on health management and management as a basis for obtaining a strong commitment to management training by health services' leaders and education authorities;

(c) organization: the establishment of an organizational structure that can determine training needs and priorities together with the health services and educational bodies.

5.6 The role of the WHO Regional Office for Europe

WHO can play an important catalytic role in mobilizing the resources needed for national management training. The tasks of the Regional Office in this field were conceptualized broadly as follows:

- designating and developing collaborating centres and associated subcentres;
- organizing intensive training exercises in management disciplines;
- providing fellowships;
- promoting studies and research on management;
- stimulating the production of learning material, especially in traditionally neglected topics;
- assisting in identifying existing learning materials;
- producing a guide on how to make a "diagnosis", how to establish the necessary organization and how to obtain the best return from efforts in this connexion.

6. Conclusions

(1) It is difficult to distinguish between the actual tasks of policy making and administrative management due to the considerable fragmentation or segmentation of decision making, even at the national level, and to the tendency for individuals to transfer managerial functions upwards or downwards, thus inhibiting the proper definition of authority and responsibility. Therefore, attention should be paid to the following factors:

- complex external influences on management in the health field, arising from decision making at a high political level, which may relate to other sectors but, nevertheless, has a great impact on health;
- conflicting goals and objectives, both within and outside the health sector, which influence the determination of skills to be included in management training programmes at different levels.

(2) A clear distinction should be made between the very different managerial skills required by health service managers and health policy managers, so as to avoid irrational or counterproductive assignment of responsibilities.

(3) Existing material on training programmes should be used as a starting point to design suitable programmes for use at local, regional and national levels.

(4) There is a need to develop coherent and integrated training programmes for health planners and managers and to identify possible educational approaches at subnational, national and regional levels. A study should be made to determine how the skills required by health service managers can be acquired in the different target groups and of the teaching methods to be used.

(5) Teacher training is seen as an important strategy for national programme development and a part of the national commitment to health management education. Moreover, teachers of management courses must acquire skills both as educators and as "salesmen" and develop their competence in specific management skills.

(6) Management training should cover health service and manpower planning, analysis and development of health organizations, health economics, quantitative methods for problem solving and development of personal management skills.

(7) Objectives, strategies, tools and activities for the development of teaching potential in the European public health and health management training systems should be examined.

(8) Both health care providers and consumers should become increasingly conscious of the costs of health care and community demands.

(9) The traditionally rigid structures of health care management have limited the possibilities for participation by providers in management as well as their awareness of consumer and community needs. Consequently, if management training for providers is to be successful, the management system must be responsive and adaptive to changes in the relationship between health care and the community. The control mechanisms should be fully understood and be acceptable to providers. It is essential that the managerial functions of providers should derive naturally from the professional functions and not be distinct, additional responsibilities.

(10) Providers must be encouraged to interest themselves in cost and community issues. Thus, training aimed at improving the effectiveness of providers should be primarily concerned with influencing knowledge and attitudes rather than inculcating particular skills, and it should be directed by the providers themselves rather than by external agents - although the latter can make contributions.

(11) The growing importance of consumer participation in health care provision has to be taken into account. If consumers are to be involved in their own health management, the community and the providers must be asked what their real problems are.

7. Recommendations

7.1 General

(1) The overall target of the training should be to stimulate new ways of thinking which would lead to improvements in an organization and its environment, and this should be a continuing process.

(2) Preference should be given to training techniques based on the latest institutional and organizational developments rather than the traditional approaches of public administration.

(3) The training should emphasize the dynamic nature of policy and decision making, so as to create awareness among planners and managers of the broad political interaction process, involving individuals, professional groups, consumers, public and private institutions, political authorities, etc.

(4) The training should pay special attention to the skills required to strengthen and expand communication within and among the various groups involved in policy making and implementation.

(5) Training of health managers should give them an understanding of the problems of conflicting and competing goals, provide an open atmosphere for solving them and enable them to promote awareness in other sectors concerning the impact of their decisions.

(6) Similarly, training of health policy makers should make them aware of the impact of their decisions at all levels of the health system.

(7) Health professionals should be trained to understand the contributions of other health sciences to health services research.

(8) Existing materials on training programmes should be carefully examined before designing new ones.

(9) Managers should be enabled, through personal and structural incentives, to constantly analyse their own potential, opportunities and weaknesses as well as the inherent constraints of decision making and implementation, and should be given the opportunity to acquire new skills through job rotation and sabbatical leave.

7.2 National level

(1) Planning for good management, diagnosis of problems at national level and the relevant training should be an integral part of the country's health planning and the educational system, taking into account the real needs of each target group, the resources available and the development possibilities.

(2) To foster a strong commitment to management training on the part of the health and educational services, a national policy must be sought and agreed upon by the authorities concerned.

(3) Within health management training programmes, priority should be given to a combined strategy of development of institutions and education of teachers.

Action at national and international levels should be complementary. At national level, emphasis should be placed on basic education and, at international level, on the exchange of ideas, experience and information.

7.3 International level

(1) WHO should stimulate and support management research and collect and disseminate information on management topics.

(2) WHO should sponsor and support short training courses for senior managers and decision makers, so as to stimulate action at national level.

(3) WHO should provide technical and pedagogical assistance in the development of national teacher training programmes in health management as well as training programmes for health professionals at all levels.

(4) WHO should establish working relations with a number of collaborating centres within international networks of contributing institutions or individuals. At least one collaborating centre should be established for each area of management, taking into account the relevant economic and social subregional patterns, and arrangements should be made for their support, including assistance for travel, and the publication and distribution of teaching materials.

Annex I

TRAINING FOR MANAGEMENT: A HELPING RELATIONSHIP

by
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This Annex consists of a summary of a statement made by the author towards the end of the meeting of the Working Group, which was discussed only briefly. The author pointed out that the Group had been very much preoccupied by the operational and procedural aspects of training for health management and that, in view of the limitations of this perspective, a different approach should be considered.

Training for and training within a hostile environment

Dealing with the education of health managers, a previous working group stated, "Many members of the health professions hold a rather negative view of management, which they perceive as bureaucratism, control for control's sake or even a sheer nuisance when it interferes in fundamental resource allocation" (1).

A recent report published by the Council of Europe also touches on the problems of introducing modern management knowledge into the health field, saying, "Most of the countries visited are in a situation where the theoretical knowledge exists in the university sphere and in research settings, but experience and appreciation within the health services is almost totally absent. The need may be high, but the demand is blocked by scepticism and distrust, nourished by some unsuccessful ventures. The management specialists are still faced with the difficult problem of selling their 'goods' by offering successful results from applications in fields outside health care" (2).

Those of this Working Group familiar with the traditional health administration will agree that training ("going back to school") is considered to be for beginners only and that the higher ranks of the civil services seem content to rely on experience, seniority and common sense (the genuine scepticism of the traditional physician about formal sciences and the social sciences as well as economics reinforces this attitude).

Summing up, it seems necessary to mention that the introduction of modern (formal, quantitative) methods of planning and management, either by consultancy or by training, into the different echelons of the health services is neither an easy nor a well accepted venture.

Barriers to implementation

The sequence of events thought to be almost natural - the development of methods as a result of research, their promotion by publication, teaching and training, first in the academic setting and then by distributing university-trained teachers to the lower levels of the school system (e.g. nursing schools, public health training facilities) and their transfer after graduation from these schools into work settings - is full of problems and pitfalls.

Researcher versus administrator

Gordon (3), dealing with values and motivation, points out that science has been institutionalized as a management-free operation with a high degree of autonomy. The major values of science include the freedom to do what one cares about, free from administrative constraints, in an organization that emphasizes the individual rather than the team.

The research undertaken is usually separate from the decision-making process. The specific terminology used in publications is quite often difficult to understand, and the results, in the administrator's view, are either too general to help in his specific situation or are irrelevant, being too abstract and hypothetical to form a basis for decisions.

Administrations are, as a rule, hierarchical. A climate of participatory decision making seems to be incompatible with tradition, and also with the functional stereotype of bureaucracy as a stabilizing and preserving element of states, societies and nations.

Administrator versus physician

Meyers (4), in discussing this relationship, remarks, "The image of health administration is very mixed. Many regard it with the utmost suspicion as an invasive irrelevance which diverts attention and resources from the diagnosis, treatment and prevention of disease". This statement was made as late as 1975.

Quite contrary to those of administrators, the prevailing values of physicians are independence, autonomy and action, which provide an esoteric service to a client who cannot handle his problems by himself and whose judgment of need is amateur. The professional dominance of authority requires faith and trust (5).

Thus, the introduction of management and planning methods into this tense and antagonistic area has to overcome a number of deeply-rooted barriers. In most European countries, these have not yet been surmounted.

Limits to training in the development of a manager

"Managerial training" refers to the programmes that are devised and offered to facilitate this special learning process of how to manage successfully and to support the development of a manager. The psychology of learning has no universally accepted theory for its subject. Some psychologists emphasize that learning is a question of activating positive as well as negative emotions, a process that is difficult to influence in a systematic way. "Even clarity and brilliance in teaching will not make a person learn. You can lead a man to class, but you cannot make him think" (6).

This difficulty in communicating management skills is increased by the common experience that learning about the tasks of a manager does not make a manager. Koontz and O'Donnell (6) state this vividly by saying, "It is one thing, in halls of learning, to suggest that managers should make subordinates happy, that authority relationships should be turned upside down or that subordinates must sometimes revolt against the formal organization. Academicians can do this because they have little responsibility for results ... It is quite another to demonstrate proficiency in management where theory is applied to actual environments calling for the attainment of goals".

Another limitation to conventional training is indicated by the revolution in information technology which has been going on since the 1960s and which seems to be accelerating. Catch-phrases such as "distributed information processing", "computer networks", "artificial intelligence", "plug-in information services", illustrate that the traditional ways of collecting information, of gathering intelligence, of communicating facts and data and of reaching decisions can be supported by powerful methods and sometimes substituted in the age of total and comprehensive electronic data processing. In this perspective, we need to analyse and perhaps revise our accustomed ways of reasoning, of absorbing facts, of digesting information and of communicating.

Human factors and resistance to change

Training is an important force of change. Chin and Benne (7) give a general outline of strategies for effecting changes in human systems. They order them under the headings:

- empirical-rational strategies;
- normative, re-educative strategies; and
- application of power.

Training clearly comes under the second of these headings and is, almost by definition, an attempt to change a person. The concept of change agent raises the issue of the feasibility of changing social systems by training and retraining their members. To quote the Swiss playwright, Max Frisch, "Men tend to fear change more than disaster". It is easy to elaborate from this that any change involves the introduction of some uncertainty. What is affected, and how, is not clear until it happens. Therefore, people tend to prefer what is familiar.

Change is usually associated with the introduction of new things and the abandonment of old things, ways of performing tasks and making decisions. A psychological sense of loss comes with this alteration in habits and behaviour, and this is uncomfortable.

People's sense of competence at work is closely related to their way of performing a function or carrying out a task. When asked to change this (by being invited or summoned to a training course), they may feel a reduced sense of competence.

- "Can I let myself enter fully into the world of feelings and personal meanings of the other and see these as he/she does?

- Can I act with sufficient sensitivity in the relationship so that my behaviour will not be perceived as a threat? Can I free the other from the threat of external evaluation?

- Can I meet this other individual as a person who is in process of becoming?"

The objectives of this check-list should be included in any training programme for managerial and human efficiency, and the deeply human attitude it represents should be basic to any training endeavour. Rogers (8) states, as the essence of a professional life as a psychotherapist, that it is the attitudes and feelings of the therapist rather than his theoretical orientation that are important. His procedures and techniques are less important than his attitudes, and this may be valid for the trainer as well as for the trainee after he returns to his service, practice or field of work.

We, as a working group invited to deal with the design of training in health planning and management, were not expected to elaborate on these dimensions of managerial, administrative and human efficiency, but no consideration of the topic can be complete without them.

These are important determinants of individual behaviour which influence the willingness to accept training, the results of the training endeavour and the application of the skills and knowledge acquired at the place of work. It would be narrow-minded to overlook the fact that, from the individual's point of view, social organizations and the workplace are means of satisfying personal needs from subsistence to self-realization, and training a person to become a change agent, endowing him with skills and instruments which are taken as a threat in his environment, may expose him to distrust and suspicion.

A new type of educational relationship

There are a number of person-to-person relationships that can and should be contained in one concept - that of the helping relationship. Teacher-to-pupil and counsellor-to-client are examples which are relevant to our general topic.

A helping relationship is defined by Rogers (8) as a relationship in which at least one of the parties has the intention of promoting the growth, development, maturity, improved functioning and improved coping with life of the other.

He has formulated certain questions that help in checking whether such a relationship has been established:

- "Can I behave in some way which will be perceived by the other person as trustworthy, as dependable or consistent in some deep sense?

- Can I let myself experience positive attitudes towards the other person - attitudes of warmth, caring, liking, interest, respect?".

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Annex II

TRAINING IN HEALTH PLANNING AND MANAGEMENT: AN OVERVIEW

by
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It is generally agreed that a planned, systematic, coherent and comprehensive programme for training in health planning and management is now a desirable feature for health and health service development in all countries. The World Health Organization has drawn attention to the needs over recent years in a number of statements and reports, increasingly comprehensive in their scope, of which the recent report of the Regional Office for Europe on "Education of managers in health services" (1) provides an excellent background to this meeting. Earlier the WHO Sixth General Programme of Work had called for priority "to promote the strengthening of countries' capacities for the planning and management of comprehensive national health services". The report of the WHO Expert Committee on Training in National Health Planning, published in 1970 (2), was a significant landmark. The report of the European Conference on National Health Planning held in Bucharest in 1974 (3) emphasized that a knowledge of planning should form part of the equipment of all the health professions, but was of greatest importance for administrators, managers, organizers, and, in particular, teachers. The Working Group on the Education and Training of Public Health Medical Officers (4), which met in Copenhagen in 1976, mentioning the need to update the training of these key people, emphasized the importance of including planning and management in their training.

1. Why emphasize training for planning and management?

The persisting need for health care for our populations which is accessible and can be afforded, as well as unresolved issues of prevention of major health hazards, highlight the importance of clearer formation and firmer pursuit of priorities. The escalating costs of health care provision have called attention to the need to get best value for money when every proposed addition to services is in competition for resources. Service provision is moving away from simple institutional bases with apparently self-contained responsibilities to wider coordinated deployment involving primary care and prevention as well as hospital responsibilities. Increasing cost, scale and comprehensiveness bring health services more and more into the political arena. Health service responsibilities and the control of environmental hazards are divided between a range of governmental and other agencies. Powerful interest groups, trade unions, professional associations, academic bodies, consumer representatives, ecology movements, compete for influence and "can bypass, erode, counter or outwit" the traditional appointed bodies and their officials in establishment of priorities and resource allocation (1).

These and other changing and increasingly complex features of the health scene call attention to the need to match the enlarging volume of our health efforts and expenditure with a planning and management capacity which corresponds in scale, skill, sophistication and sociopolitical capability with our tasks and requirements. To date, in many of our situations planning has been intermittent, inconsistent and limited in scale to narrow sectors or particular inputs such as capital building, whereas broad-based continuous planning, focused on the output objectives of better services and improved health, is required. Managers have often been trained in a particular profession but untrained in management, or recruited in haphazard fashion and left to learn by practice within narrow job horizons, and without any clear prospect of career development and promotion.

2. What is required?

One thing is clear: progress will be slow and desultory without real commitment to the importance of improved planning and management. "The promotion of national health management education programmes depends, in the first place, on an explicit national health policy, aimed at solving the problems of health and ill-health by including management (and planning) as an important aspect and dimension of health services. Such an explicit national policy should identify those responsible for the education and training of managers for health services" (1).

The first step in moving forward is to bring together the major services and educational interests concerned to affirm a commitment before proceeding to more detailed recommendations. This involves recognition that a real commitment requires significant expenditures of money as well as thought and effort.

At first sight it might appear that the diversity of methods of organization, funding and arrangement in the different health systems of Europe would make any general consideration of what is required impossible. This is not so. Although arrangements for planning and management deployment and education must be suited to local needs and will vary from country to country, there are strong underlying necessities dictated by the requirements for solution of our problems of health and health service delivery which are common to us all:

- "education and training in health care management should be a continuous process and not a unique educational experience;
- this continuous process should be related to needs at successive key stages in career development;
- educational programmes should embrace all health workers with managerial responsibilities at different levels or from different disciplinary backgrounds;
- health agencies should be involved in the identification of training needs and in the development of educational programmes;
- basic programmes should be provided for those entering health services management and advanced programmes (both degree and continuing education programmes) should be available for practising managers: these programmes may include full-time, part-time and correspondence courses;
- a network of links should be established to permit management education to relate both to service agencies and their organization development and to health services research;
- the educational strategy should promote career mobility and should offer rewards and career incentives to those individuals investing in continuing education and management development" (1).

The need in preparing the requirements for a particular country is to produce an outline of the management structure for the organization and supervision of the services at different levels. This leads to questions such as the following: where does responsibility lie for planning the services at each level, and for financing and managing them? Is there an organization chart for each level indicating line responsibilities upwards and downwards for management of services, etc.? Does the chart show the linkage with advisory organizations such as committees in the health field; with health-related agencies, for example housing, education, environmental control, etc.; and with local community representatives and groups? We need also to know to whom the professionals and other health workers report; who is responsible for monitoring the services and evaluating them; what are the main problems hindering the effective management of services and institutions; and, of course, what management training facilities are available.

The report of the WHO Steering Committee on Staff Development and Training (5) discusses roles and functions of public health managers. There are two overlapping roles for the health manager, namely the planner and administrator. The planner is responsible for delineating an existing state of affairs and forecasting the future needs and demands to meet the requirements of specific health problems. This requires an appreciation of the application of scientific methods in the deployment of health services. The administrator is responsible for the provision of a system which will ensure effective preventive and curative services supported by efficient administration and with facilities for operational research and staff training. The levels and extent of managerial responsibilities naturally vary according to the specific roles allocated in the two major areas of concern. Whatever his role, however, the manager must be prepared to accept responsibility for decision making, act as adviser and demonstrate qualities of leadership, efficiency and the ability to establish good working relationships.

Four types of activity have been identified to create national self-reliance in education and training for planning and management:

- "management education aims at providing relevant knowledge, attitudes and skills to permit managers to perform successfully a large variety of tasks in various organizational situations and settings;
- management training is more organization-specific and is intended to prepare people for well-defined jobs by developing skills immediately useful for well-known tasks and assignments;
- management development is intended to enhance the managerial performance of practising managers through a variety of job-related educational activities within a policy of continuing education;

- organization development aims at improving relationships, communication, functioning of teams, etc., within organizations so that the transfer from what the individual managers have learned to improved organizational performance can be synchronized" (1).

Whatever decisions may be taken about local requirements, it is useful to stress the importance of attention to adequate career opportunities. This implies not only real prospects of promotion and advancement, without which there can be little incentive to use training opportunities for self-improvement. It also requires the creation of some effective system of recruitment and career supervision and development. The larger the opportunities for movement, lateral as well as vertical, the greater will be the incentives; consequently, intersectoral agreements to create joint educational programmes should extend, if possible, to the creation of intersectoral career links.

3. For whom is education required?

The range of personnel for whom education and training are required is as wide as the health system itself but, just as with the development of educational opportunities, some caution is called for not to embark on new commitments until priorities have been established, planning has been carried out and resources are available. With that caveat, however, it is desirable to take a wide view of eventual requirements and not limit our vision only to traditional recipients of education, such as public health doctors and hospital administrators.

An essential prerequisite for a successful training programme is the preparation of job descriptions for posts at different levels of the health services, together with analysis of the knowledge and management skills required for each post, so that appropriate training prescriptions can be devised. These prescriptions should include not only formal courses in special training centres but also (and often preferably) in-service learning, correspondence courses, manuals on specific topics, radio and television programmes, travelling workshops, job rotation and other innovative methods appropriate to each country.

Some management orientation should be arranged in the basic training programmes for doctors, nurses and other professional and paramedical staff. There should also be envisaged management appreciation courses for such health professionals with special leadership or administrative responsibilities. Conversely, there should be some epidemiological and other health orientation in the training programmes of nonmedical administrators. Interdisciplinary training sessions, seminars and workshops are a valuable means of promoting essential understanding between the different professions which must work together to provide health services. Managers at every level should encourage the self-development of their staff and should be trained in how to train their own subordinates. This is what Hardie calls the "cascade effect" which reaches many people for a small initial expenditure. It is important to encourage participation by the community in the planning and management of their health services, and training programmes for managers should include practical information on how best to promote such participation (6).

In his typology of health care managers, Blanpain (1) has identified subgroups: senior managers who could be at national, organizational, regional or area level in different systems (they supervise the development of a multiunit organization with public representation and responsibilities for achieving cooperation with other agencies and sectors, analyse problems, develop strategies, mobilize resources and coordinate action); middle-level managers at the institutional or programme level responsible for the planning, organization and evaluation of the operations of their institution or programmes within the framework of the overall system; unit managers responsible for the day-to-day operation of departments of institutions or components of programmes; managerial specialists who are responsible for providing support for the general managers (specialists of this type represent such fields as finance, personnel management, plant engineering, data processing, operations research, public relations and law).

4. How should education and training be provided?

It should be clear from the outset that there is no simple or single answer on how to provide appropriate education and training. Experience can be brought together and shared, but each country has to find its own solutions, although there may be valuable sharing across national boundaries. Even the countries which have made the biggest efforts and investments have still much to learn.

The current situation regarding education in health management in Europe seems to be patchy. A survey of the European Region carried out in 1973 identified 25 programmes in 15 countries (1). Since then, there have been further developments.

Although our efforts in Europe have been sparse compared, for example, with those in North America, it is probably usually best to aim, wherever possible, to develop existing training institutions rather than build new ones. For example, it may be preferable to extend the work of an existing institute of public administration or university department of public health administration rather than establish a completely new and separate institute of health service administration. It may well be appropriate to aim at developing one or more major centres. One important reason for this is the need to develop programmes and plans for the recruitment and training of future trainers of managers (6) as these are easier to promote in larger centres.

Concentration of resources is to be preferred to dispersal, in order to make best use of available educators. For example, it will often be best to locate responsibilities for basic and continuing education in the same institution. The question may arise whether it is desirable to create de novo a staff college for the benefit of the health services. While the idea has some appeal, there are disadvantages to bear in mind. If the staff college is to be self-contained as regards teaching staff, it may find it more difficult to recruit staff than an existing institution such as a university. Moreover, the commitment of providing a total staff is also considerable. Nevertheless, there are great advantages in having premises, preferably residential, in which health service personnel can be brought together for short spells to share a teaching module, seminar or workshop, with the added advantages of informal social contact and exchange over meals and in the evenings. The educational modules provided in such accommodation can be staffed by existing staff from nearby university departments or other agencies. Such an institution may be available solely as residential accommodation with all the educational promotion and planning done from other institutions which share its amenities, or it may have a small core staff to organize the learning experiences but may recruit its teaching staff for particular modules on an ad hoc basis from other institutions.

An important consideration in planning for educational development is to decide which solutions will most effectively promote research potential and activity. If teaching in planning and management is not to become static, stereotyped and insufficiently adapted to the changing circumstances of health service organization, it needs to be closely attuned to research into current issues and methods for improving the measurement of health needs, the evaluation of services and other technical advances which are urgently needed to increase our effectiveness and efficiency. Moreover, in training for the higher management levels some practical experience of research investigation may be one of the most important learning experiences for the trainee. Too often in the past we have taught only the theories of epidemiology and other key investigative methods, and these are apt to be quickly forgotten if the individual has not had any guided opportunity to put the methods into practice.

As far as basic training is concerned, we must think in terms of training programmes and not just about teaching curricula or modules alone. The training programme should consist of a combination of learning opportunities in the relevant skills and disciplines, provided at an appropriate level, and a planned service apprenticeship under the supervision of designated and approved preceptors. Often insufficient attention is paid to the problems of transference from classroom to the working situation and to implementing principles and techniques learned during training.

A central agency which may be of great value in enhancing professional standards is the professional association which exists to promote the educational standards of its members (rather than their trade union interests), and to represent views on policy issues to government and other organizations. An example of such an association is the United Kingdom Faculty of Community Medicine.

The actual teaching can be provided in a wide variety of ways. In preparation for a career in higher or middle management there are some advantages in being able to offer the option of a full-time university-level postgraduate course. The duration of such a course will vary according to local policy. In the United Kingdom and North America such courses may last one year, or they may take longer, with opportunities for research work by the student. Equally, they may be continued with concurrent service experience also provided.

There is little experience in Europe with the "Open University" type of approach, which affords learning opportunities to university degree level for the non-resident student, but such opportunities for health administrators exist in North America, where a combination of correspondence course and part-time attendance for tutorials, special seminars, etc., may allow the candidate to gain credits for appropriate modules which allow the award of a university degree (7).

Another arrangement to provide basic education to an advanced level is currently in operation in the United Kingdom as one option for community medicine specialists in training. Consortia of university departments throughout a region agree to take responsibility for different modules of a total programme, and the students sandwich periods in these different universities with service experience. With such programmes much attention must be paid to organization, otherwise the risks of unacceptable repetition or gaps in coverage are real.

The desirability of an effective organization for arranging part-time teaching and continuing education is obvious. Undoubtedly the most ambitious organizations of this kind are in the USSR and other eastern European countries. Their operations are related to highly structured staffing systems which can require periodic attendance for postbasic refresher education as a prerequisite for promotion, etc.

There are a whole range of modules which could be deployed by such an organization, either to provide seriatim the elements of basic training or to give added training subsequent to basic education to those who are taking on new responsibilities or commitments. Modules of this kind are health planning methodology, operational research, evaluation methods, health economics, health information systems development, epidemiological techniques for health planning and evaluation, group dynamics/sensitivity training, and the relationship of health to socioeconomic development.

An arrangement of significant effectiveness is the peripatetic workshop for training in management and planning. Such workshops have been organized by WHO and could be replicated with advantage, but they demand a high level of organization and teaching ability.

There are, of course, many other kinds of experience which may be arranged by organizations responsible for continuing education. The value of refresher training lies not simply in the content of the teaching, but in the stimulus to job interest and enthusiasm which comes from renewed professional contact and discussion with teachers and colleagues and from exposure to recent advances in information and methods.

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Annex III

THE DESIGN OF TRAINING MODULES IN HEALTH ECONOMICS FOR NON-ECONOMISTS

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1. Introduction

This paper has the following important limitations:

(a) it is based only on one person's experience and views;

(b) it focuses primarily on British problems and material.

This may not matter too much if, as is likely, most European countries face common problems (though in different manifestations), both with their health care systems and with the lack of economic expertise in dealing with them. Indeed, since my view is that it is the analytical power of economics that needs to be demonstrated, there should be plenty of common ground across very different institutional and political frameworks. However, the limitations must, in all honesty, be made quite explicit at the outset.

I have tackled my assignment in the following manner.

Section 2 sets out the objectives which I think a health economics module should pursue, namely to change people's way of thinking; Section 3 explains at some length the teaching methods appropriate to this ambitious task; Section 4 (and the appendix) describe and comment on the selected core content of such a module, which would concentrate on economic efficiency, economic evaluation, and budgeting and incentives; Section 5 offers a brief critical survey of the possibilities for the evaluation of both courses and participants, favouring the former but deploring the latter.

There is no peroration or epilogue. Instead, I will state my broad conclusion right here at the beginning, namely that there is scope for a variety of health economics modules with different purposes, which will have different content, methods, length, etc. I hope that, in that armamentarium, there will be some with the ambitious objectives and intensive methods that I outline here. It still will not turn participants into economists, but that is not the objective. If people can be brought to think like economists, they will (a) be able to tell good economists from bad ones; (b) be able to tell good economics from bad economics; (c) be able to tell when a problem has significant economic content and what that content is; and (d) be able to prepare a sensible brief for any economist who might be brought in to work on it. This would be no mean achievement.

2. Objectives

At a fundamental level, the objective must be to enable non-economists to think like economists. This is a very ambitious task, because it requires economics to be presented as a coherent, intellectual discipline and not just as a few disconnected pieces of conventional wisdom. Once this is accepted as the overriding objective, there are deep and pervasive implications for the nature of any training module in health economics, which do not follow if the objectives are less ambitious. Such "less ambitious" objectives, still challenging and worthwhile, however, might be (a) to give some indication of the kind of work that health economists are doing and might do; or (b) to explain in commonsense terms the jargon of health economics; or (c) to explore the relationships between health economics, accountancy, epidemiology, operational research, sociology, etc.; or (d) to analyse in depth the contribution that health economics might make to some specific problem (e.g. the formulation of a screening programme, the running of an orthopaedic unit, the choice between hospital-based and home-based physiotherapy). My "ambitious" objective will, of course, contribute to each of these more "modest" objectives incidentally, but, because they do not constitute the central purpose of my module, none of them is likely to be as effectively achieved as would be the case with a module directed single-mindedly to its fulfilment.

3. Teaching methods

The teaching methods are dictated by the objective. Since the objective is to change people's modes of thinking, they must be offered a very intense, even cathartic, experience, which some will find emotionally as well as intellectually disturbing. The format will be that of a group therapy session, the (economist) course tutor playing the role of "therapist", with such help from fellow economists as he needs. This perhaps strange analogy with a group therapy session will help to explain why I place considerable weight on teaching method, including the physical environment in which the teaching occurs. This is frequently neglected when designing courses, it being blithely assumed that, once the syllabus has been laid out and the reading list promulgated, the teachers and the taught can be left to get on with it. Ultimately, of course, the teachers and the taught do have to be left to get on with it, but before that stage is reached a full discussion of pedagogic strategy should be conducted between the sponsors of the module and the potential teachers, so that those who do not subscribe to or understand and accept the full implications of the objectives and/or are incapable of responding to the dynamics of the group experience can be weeded out.

What follows is based on a decade of teaching activity in this field in a variety of formats. At one extreme lie one-hour summaries of the "cost-benefit approach to health", given to large conferences of administrators, doctors, treasurers, etc. At the other extreme lie five-day intensive residential courses for similar people but in much smaller groups (numbering 8 to 20 people), sometimes all of one discipline, but more frequently of mixed disciplines and backgrounds. Over that time, I have come increasingly to favour the latter arrangement, since the most one can achieve by half-day or one-day sessions is a whetting of the appetite. I also have doubts about, though no direct experience of, modules which consist of a succession of one-day or half-day sessions spread over many months, because at some stage one needs to get the group "white-hot" and in continuous ferment if they are to undergo the catharsis that I have in mind! It may be that such isolated one-day events might precede or succeed an intensive residential course, but they are no substitute for it. It also follows from this that the composition of the group itself is of considerable significance, and it is important that they are all there from beginning to end, with no floating membership of "casuals" drifting in and out for odd days, since this impedes group dynamics.

The course director must ensure that all participating teachers/tutors know what they are supposed to be doing, how it fits in with what the others are doing and anything significant that has happened within the group up to that point, both as regards interaction between group members and between the group and the earlier teachers/tutors. This is tricky, even with resident staff who know each other well and are in more or less continuous contact anyway. It gets very difficult when teachers are imported from outside for single sessions, as is usually necessary at some stage. Vetting people for their teaching/tutoring/counselling abilities is not easy. It usually requires the course director to sit in on sessions and to be ruthless in weeding out unsuccessful performers, however eminent, from future programmes. This is probably the greatest single constraint on successful course work because, with such an intensive set-up, teachers must be prepared to be responsive and encourage participation. This means that they must be direct, approachable, articulate, quick-thinking, flexible and know their subject matter inside out so that they can respond convincingly at any level and in any direction. They must also be firm and sensitive controllers of discussion, allowing the expression of contrary views, encouraging discussion within the group, yet stifling irrelevance (unless usable pedagogically) and suppressing more repetition or reiteration. All this needs to be done without becoming overtly authoritarian or patronizing, because the members of such groups will expect to be treated on a footing of equality, usually being as distinguished in their own fields as the teachers are in theirs. There are not many people who can cope with the very great demands such courses make upon the teachers, and there is consequently a tendency to seek shelter in the more formalized "lecture hall" format, where, with the aid of a dais, a slide projector, a lectern and with the audience arranged passively in serried ranks, a more didactic atmosphere can be maintained. In my model of the intensive residential group, the seating is arranged less formally in a circle or hollow square, the teacher "joints" the group, and, if factual material or visual aids are required, they should be precirculated or available to group members so that the proceedings can be conducted more like a meeting than a lecture.

The other major plank of my pedagogic strategy is that each broad topic within the syllabus should follow a common cycle of (a) exposition of basic ideas; (b) individual or group project work; and (c) report-back and general discussion. The amount of time devoted to each phase depends on the complexity and novelty of the material, but generally a ratio of 1:2:2 is probably optimal. Phase (a), exposition, is bound to be rather more didactic than either of the other phases. It should aim to orientate people's thinking and introduce them to some key concepts,

explaining as simply as possible their relevance to the problem and why they have been found useful. It is important at this stage not to go into too many complications or difficulties and to be fairly positive. Although the teacher will know what the project work is, as may the audience, it is important not to let the exposition be influenced too directly by what the project will require, for while it is a great temptation to turn it into a project briefing session, this may well distort what is intended to be a general and balanced introduction to the whole field. The project is a vehicle to test understanding of basic principles, and should ideally not require the group to digest masses of information and should not prestructure the nature of the "solution" any more than is absolutely necessary. Indeed, it should ideally be so designed that it can legitimately be tackled in a variety of ways, each of which is valid on its own terms, but which leads to different perceptions of the problem and the way ahead. With the group split into two or three subgroups working independently, one hopes that, at the report-back session, significant differences will emerge which provide compelling "live" material for the teacher to exploit, so as to bring home the force of the principles he had enunciated earlier, to identify error, to show how certain complications (suppressed earlier but latent in the project assignment) could be handled, and to comment on the strengths and weaknesses of the different approaches. Groups should be encouraged to treat all the material as common property once the report session begins, so as to reduce defensiveness and enhance learning capacity. Learning by controlled doing is a very powerful method with people who are unused to passive absorption of spoken material and who find personal participation much more enjoyable.

As will be obvious, a residential course is far superior to any other for these purposes for a variety of reasons, the most important being the feedback and psychological support which is facilitated by the informal interchanges between the course members themselves, and between them and the course director, during the "out-of-session" interstices of the programme. Wounds will be opened up which need to be healed. Excitement will be generated which needs to be harnessed effectively. The quieter or more isolated participants need to be drawn into the formal dialogue. Dissidents need to be brought round, and the more persistently disruptive or uncooperative participants plumbed more deeply to expose, both to themselves and to the course tutor, the nature and location of the bedrock of resistance, i.e. which of their basic beliefs appear threatened, how and why. Moreover, since, in a five-day span, the strategy on the first day is to inculcate doubt in participants about the adequacy of previous ways of thinking about problems (doubts which they probably had to a mild extent before coming on the course), while the middle two or three days are designed to explore those doubts and offer an alternative way of looking at things, it is important that participants be brought to the final fence by the beginning of the last day and at more or less the same moment, so that when one enters the final straight and everything is being put together, they are all in a suitably receptive mood. It is very difficult to engineer this if people have been dashing back to their offices, constantly telephoning their colleagues or going home to domestic problems during the period of the course.

From many points of view, it would obviously be better to have longer than five days in which to attempt this miraculous change in people's perceptions of the world, but it is likely to be the longest period for which it is feasible to get relatively senior and responsible people away from their jobs. It is, therefore, a programme tailored with that resource constraint in mind.

4. Content

Content falls into two distinct parts. There is firstly the selection of the key concepts that need to be covered, no matter who the clientele happens to be. Then, secondly, one could go on to differentiate the choice of illustrative examples and the fields of application in project work, etc., according to the particular interests of the clientele and according to their intellectual capabilities. There is, however, one important argument against doing this, namely that if one of the subsidiary objectives is to enrich people's perceptions as to how economic modes of thinking bear on a wide variety of problems (this is especially important where people are likely to find themselves moving about within the health care system, and hence playing a variety of roles during their careers, or where they are already required to work in a multidisciplinary manner), then it is better to expose them to a wide variety of problems during the training module, even though some of these problems are rather remote from their immediate concerns.

The key material for all participants on such a course focuses on only three topics. These are (a) economic efficiency; (b) economic evaluation; and (c) budgeting and incentives. Within each topic, the material is to be selected for its analytical importance, and factual, institutional data are kept to a minimum. Thus, my syllabus is a set of problems, questions and tensions. Some will turn out to be semantic, some substantive. Some are resolvable; some are not. Some involve the reformulation of questions; some will eventually be seen to be a priori

value statements, some issues of fact confrontable by evidence. The questions to be asked about each proposition or procedure are: what does it mean? Is it unambiguous? Where does it lead? How is it different from other ways of looking at things? What would be involved in implementing it?

Before setting out my selected content in more detail, I must explain some important exclusions. First of all, there is nothing on manpower planning, a potentially important topic which, if I had more time available, would be my prime candidate for inclusion. If I did include it, it would be in the context of the working of labour markets, why such markets "fail" and have to be supplemented (supplanted?) by "plans", and why these plans "fail". I would touch on issues of factor substitution, training costs, redeployability in the face of uncertainty and the sensitivity of recruitment patterns to wage and salary differentials. It would also be necessary to include consideration of the economics of professional restrictive practices and government regulation of the medical professions. It is too big a topic to add to the list I have already drawn up. A smaller but less important exclusion is the popular subject of international comparisons of fractions of the gross national product spent on health or medical care, numbers of doctors per thousand population, etc. Participants will get some incidental insights into the perils and pitfalls into which such comparisons can run, but they are a too great and unproductive diversion to include in such a short span. A third excluded area, of considerable importance for some people, is the economics of the pharmaceutical industry, its relationship with government policy generally (e.g. research and development, international trade, multinational companies, patents) and with the health service in particular (control of advertising, pricing policies, drug trials, etc.). Again, it is too large and difficult a territory to include in an already overstretched programme of work and is better treated as a separate specialist interest.

My core syllabus is set out in the Appendix. Topic A is designed to act as an "unwinding" subject, in which people bring out their prior conceptions (which will be found to include a fair number of misconceptions) about what "economic efficiency" means and how it relates to the other notions listed. The teacher's objective here should be to explore all nooks and crannies, clarifying issues but not necessarily resolving them. If it appears necessary, he must add to the potential confusions himself from time to time by referring to erroneous or misleading views which are frequently put forward but appear to have no spokesman in the particular group before him. Project work here should be based on some extant study or studies which purport to be about promoting "efficiency", but which are unclear or, better still, internally inconsistent in the basic though often unstated notion of efficiency which they are employing. At some stage in the subsequent discussion, someone will invariably express doubts as to whether he really wants to be "efficient" if this is what is involved, which will lead to a discussion of allegedly competing criteria (practicality, political expediency, equity, etc.).

Topic B provides the widest scope for variation of material in accordance with the particular interests of the group. It is most important to make clear the distinction between financial appraisal and economic appraisal and, within the latter, between cost-effectiveness and cost-benefit analysis. The issue of valuation will be central here, and it is important to explore the underlying ethical basis of crude market valuations, adjusted or simulated (behavioural) valuations by consumers, supplier-dominated valuations and the valuations emerging from "political" decisions. As far as I am concerned, this is the core of the core, and if participants emerged with a clear understanding of these fundamental issues, I would be well content. All the rest are detailed manifestations and particular applications of these ideas, not only within topic B but within topics A and C, too.

Topic C can be structured in a variety of ways. I prefer emphasizing the clash, in a planning context, between traditional (financial) budgeting and "programme budgets", with stress on costing and output measurement problems; but it is possible, instead, to work within traditional financial budgets and stress the implications of designating new types of budget holder (e.g. clinicians) and concentrating on the problem of benefit assessment in the context of the resulting tensions between "the administration" and "the clinician" over valuation of outputs and control of inputs. Yet again, it would be possible to select as the key issue the extent to which charging should be used to influence users of services rather than providers of services and what the implications are for efficiency, equity, etc. Here again, there is scope for tailoring the tactics to the interests of the group while holding firm to the strategic objectives.

5. Evaluation

There are two distinct issues here: how the course itself is to be evaluated and how the participants are to be evaluated. I shall tackle each separately.

In the evaluation of the course, various possibilities exist: (a) self-assessment by the course director and teachers; (b) immediate assessment by the participants; (c) longer-term retrospective assesament by participants; (d) assessment by sponsoring agencies; and (e) assessment by peers. If the teachers are sensitive and experienced, they will usually know by the end of the course how successful they have been. A programme works with some groups and fails with others. Particular teachers have off-days and good days. Here, the informal tests are the degree of comprehending participation, well directed inquisitiveness and judicious imagination shown by the group in responding to the challenges placed before it. Self-evaluation, however, presents obvious dangers and needs to be disciplined by independent evidence, which may or may not corroborate the course director's own views. Immediate assessment by participants is the easiest thing to generate, e.g. by way of structured questionnaires with plenty of scope for open-ended constructive comment. Its weakness is that it will be too close to the experience itself, and no one at that stage can take a detached view of the long-term and more lasting effects. I am always greatly pleased when people say "I haven't had to sit down and think so hard for years" but I have no idea how quickly this newly rediscovered capability dissipates in the face of day-to-day pressures. Longer-term retrospective reassessment is both costly to collect and difficult to focus, since so much else will have happened that people may be only dimly aware of the changes wrought (their colleagues may notice more!). Sponsoring agencies (i.e. employing agencies) may be a vehicle for detecting and reporting such changes in participants, but the danger here is that they may be applying different criteria of success from those aimed at by the course itself! Peer review (by other experienced teachers) is likely to be better informed as regards the pedagogic skill with which the programme and teaching material are put together but, since the "peer" will not literally be an "auditor", the crucial part of the process will be outside his ken.

Evaluation of the participants opens up the same wide range of possible evaluators, namely (a) themselves; (b) the course director; (c) their employer/sponsor; and (d) their peers. It also leaves open the question of timing (whether evaluation should take place immediately, shortly afterwards or long afterwards). "How much (what) do you think you have learned?" is not a silly question, and the answers themselves are of interest both for what they tell us about the individual and, when put together with those of other participants, about the course itself. Alternatively, it would be possible for the course director to organize a written examination, or some project work, to be undertaken subsequently and which could be "assessed" and "graded" as if for some qualification or other. The employer/sponsor could play this role through some intensive debriefing, which might almost amount to an oral examination, or by assigning some task as a test. Rather more invidious, yet often even more perceptive and revealing, might be the assessments of participants by their fellows, though this is more likely to elicit data on their intrinsic strengths and weaknesses than on what they gained from the course.

The purpose of evaluating the course is presumably to improve future courses and to identify good and bad teachers, methods, content, etc. I think this is worthwhile, needs to be encouraged, but also needs very delicate and sensitive handling, because in handling the information generated, one has to be aware of its source and the possible reasons behind the views expressed. The purpose of evaluation of the participants is presumably to assist in subsequent career planning, by identifying abilities and aptitudes which the course has brought out, both positively and negatively. If this is the purpose, then it could probably best be served by a confidential letter from the course director to the employer. However, I am against this because it interferes too strongly with the teaching relationship. The essence of my recommended teaching method is open interchange. If people think they are continually being "assessed" they tend to become defensive, and this inhibits the exploration of new ideas. I think it should be assumed that people at this stage in their careers are sufficiently well motivated, and well known to their employers, not to need formal evaluation; I have never conducted it on any mid-career training courses I have given and would be most reluctant to do so. I am, however, always interested in, and sometimes even influenced by, what the participants think about me!

Appendix

CORE SYLLABUS

The following notions need to be inculcated and understood.

A. Economic efficiency

Its relationship to:	technical efficiency	... physical relationship versus value relationships
	value-for-money	... financial outlays versus opportunity costs
	market prices/costs	... benefits valued by ability and willingness to pay by some other method
	need	... implicit versus explicit valuations
	equity	... what precise notion of "fairness" or "equality" is held to be desirable and how (if at all) it clashes with "efficiency"

B. Economic evaluation

Financial appraisal; cost-effectiveness analysis; cost-benefit analysis.

Stressing in particular that a public sector financial appraisal is not a cost-benefit appraisal, and that finding the most cost-effective way of doing something in no way justifies doing it.

The notion of marginal (rather than average or total) adjustments will also be critical here.

The problem of benefit (or output) measurement as a matter of relative valuation (or trade-off).

C. Budgeting and incentives

The multiple functions of budgets and the weaknesses of traditional budgets as planning tools and as sources of appropriate cost information. The problem of estimating true marginal costs. Programme budgeting as a strategic planning tool.

The tension between economic efficiency and financial incentives in decentralized systems. The problem of inculcating cost-consciousness and rewarding genuinely improved efficiency. Possible tensions with professional freedom.

The effect of pricing, internal charging and remuneration systems upon the behaviour of providers and users.

Annex IV

THE DESIGN OF OPERATIONAL RESEARCH TRAINING MODULES FOR HEALTH SERVICE MANAGERS AND PLANNERS

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MODULE 1: For clinical doctors in hospitals or primary care

Teaching objectives

The objective of this module is to teach clinicians some of the standard methodologies which have been used with success in health systems. It is designed to add an element of management of resources to their clinical responsibility.

Topics to be discussed

With the increasing complication of diagnostic and treatment technology leading to escalating costs of health services, it is more and more a requirement that clinicians recognize the necessity for efficient use of the resources which they command. These resources include medical manpower, nursing manpower, hospital facilities, primary care facilities and community support services (see Fig. 1). At clinical level, the main emphasis must be management and operational planning on a day-to-day and week-to-week basis. This will include:

- admission and discharge systems;
- bed allocations for emergency admissions;
- outpatient appointment systems;
- operating theatre scheduling;
- nursing dependency.

Fig. 1. List of health service resources

STAFF	Doctors Nurses Professional and technical staff[a] Administrators Ancillary staff[b]
SUPPLIES	Drugs Dressings Linen Minor equipment of all kinds Utilities, e.g. fuel, water, electricity
CAPITAL STOCK	Wards (beds) Day hospitals Outpatient department, accident and emergency department, theatre suites, pathology laboratory, X-ray block, etc. Community clinics Health centres Kitchens and canteens Stores Offices Nurses' and doctors' homes, etc.

[a] For example, radiographers, physiotherapists, occupational therapists, chiropodists.

[b] For example, cleaners, porters, kitchen staff, laundry workers, maintenance men.

Teaching methods

The outcome of any operational research (OR) study will be critically dependent upon the necessary simplifying assumptions that are made in order to construct and manipulate a mathematical representation of the situation which is being analysed. It is the role of the manager to be aware of these assumptions in some detail and to accept or deny their relevance and credibility. Therefore, he must participate in a study at all stages. He will also have the role of recognizing that medicare systems consist of people and are for people, and so it will be his duty to consider the behavioural factors which apply in any situation and to ensure that they are adequately taken into account.

There are two elements which may be used for teaching purposes at clinical level:

(a) the case study, where manager and analyst together present a real problem and examine what was done about its resolution;

(b) management games, where the students can proceed through a complex management situation and be shown the way in which overall efficiency can be affected by their own decisions - a large mixed specialty ward is particularly suitable for this purpose.

Syllabus

Introduction based on appropriate sections of the Lisbon working group[a] report.

(1) THEORY: Allocation of resources, including programming techniques
CASE: The IIASA[b] DRAM[c] 3 model
TIME: 1/2 day

(2) THEORY: Inventory control: investment versus stockout (linen, dressings, pharmacy, etc., topping-up systems)
or: admission policies: emergencies versus planned
TIME: 1 hour

(3) THEORY: Queuing
CASE: Outpatient clinics/general practitioner clinics
TIME: 1 hour

(4) THEORY: Computer simulation methods
CASE: Accident and emergency systems
TIME: 1/2 day

(5) THEORY: Management games
CASE: Ward management
TIME: 1/2 day

(6) THEORY: Behavioural factors: decision versus negotiation
CASE: Presentations by the students of reasons why analysis will not be acceptable in particular cases, followed by group discussion to identify the cause of failure
TIME: 1 day

It is suggested that the teacher-student ratio be about 1:6 and that the formal lecture time be less than half the total time available. Thus, the above programme might be presented to 30 students by a teaching staff of five over a period of three days. For busy clinicians, two weekends (Friday evening to Sunday afternoon) would be ideal.

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[a] WHO Regional Office for Europe. Research on simulation models for health management: report on a Working Group. Copenhagen, 1979 (EURO Reports and Studies, No. 20).

[b] International Institute for Applied Systems Analysis.

[c] Disaggregated resource allocation model.

MODULE 2: For provincial/country health service administrators, including medical and nursing administrative staff

Teaching objectives

To demonstrate to planners the relationships and interactions of the different planning activities which they undertake.

Topics to be discussed

It is essential for the health service that the medium-term and long-term effects of immediate planning decisions are recognized and that a corporate plan is developed.

While the precise topics to be covered will depend on the respective roles of province/county and national ministry in the country concerned, it is suggested that the planning process at the subordinate level can be structured on the following lines:

- the services to be planned must be enumerated (Fig. 2 gives an example);
- for each service a systematic approach must be defined (Fig. 3 gives one such approach).

The agreed approach will then define the main topics to be covered.

Fig. 2. Classification of health services

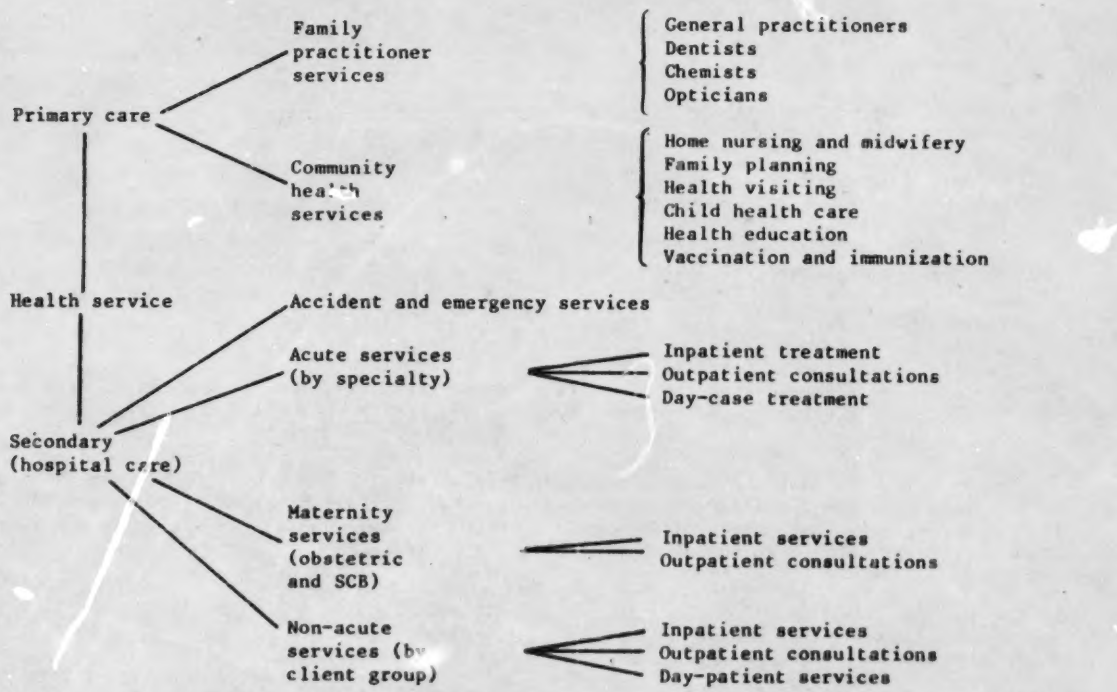
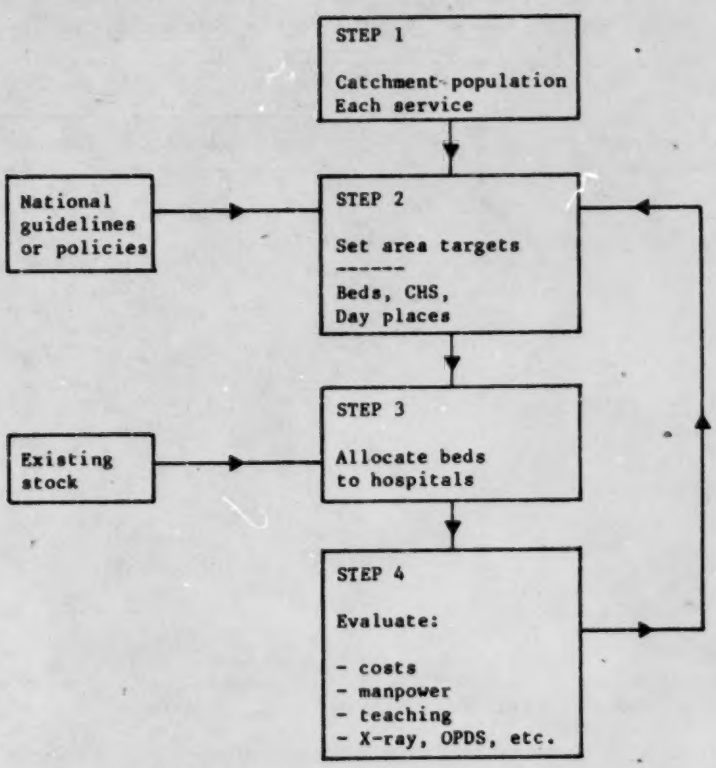


Fig. 3. The basic approach



Syllabus

Introduction based on appropriate sections of the Lisbon working group[a] report:

(1) TIME: 1 hour
Operational research and planning
Check-list of tasks to be considered (Fig. 4)
TIME: 1/2 day

(2) The projective approach or supply-based planning:

(a) project national trends in lengths of stay and admission rates to derive future bed requirement rates;

(b) apply these rates to the projected population of an area or region;

(c) adjust the results for local factors;

(d) adopt the adjusted results as "targets" for the area or region;

(e) advantages and drawbacks.

[a] WHO Regional Office for Europe. Research on simulation models for health management: report on a Working Group. Copenhagen, 1979 (EURO Reports and Studies, No. 20).

Fig. 4. Possible check-list of tasks for operational research in planning, with some advice

Services to be considered
Acute inpatients
Acute outpatients and day cases
Accidents and emergencies
Maternity services
Family practitioner service
Mental illness
Mental handicap
Elderly
Younger physically handicapped

Problems to be considered
Establish catchment areas
Set targets for the area/district
Allocate targets to sites
Model interaction of health and social services
Financial evaluation
Manpower planning
Examination of supporting departments
Study of accessibility of services

It is an approach to target setting which has two main advantages. First, the analyst knows precisely the assumptions upon which his targets are based and the year in which they apply - information which may be singularly lacking in many national guidelines. Secondly, the planner can incorporate the opinion of local clinicians in his targets relatively easily at either of steps (a) or (c). For example, the OR team may adjust projections of lengths of stay where local consultants find them unacceptable. By taking account of their judgment in this way, the team is able to convince doctors in local hospitals of the validity of the proposed acute bed targets.

A drawback to the projective approach is that it offers targets which are a function of past and current levels of provision. At first sight, this is not always obvious; the analyst uses projections of manifest demand (case-loads and lengths of stay) rather than projections of bed supply to set his targets. However, since manifest demand is itself a function of supply, the planner must, if he adopts the projections as desirable targets, make one major assumption; he must assume that the national rates of provision are and have been adequate. He cannot, therefore, use this approach to set targets for resources where current or past provision is recognized as wrong.

(3) The normative method (where central guidelines or norms are issued, the provincial function is to interpret them in the light of local conditions).

Components upon which norms depend:

(a) need;

(b) good practice;

(c) political judgment;

(d) extrapolating current trends;

(e) advantages and drawbacks.

Using guidelines or norms to set targets has the great advantage of being quick, simple and easy to understand. This essential simplicity means that:

- the approach is easily understood by local planners; in some studies, for example, the OR team may find that local planners are already familiar with the use of guidelines and are able to appreciate the necessity of tailoring the targets to local factors;

- there is time to attempt a comprehensive examination of all services in the area, with consequent advantages;
- more time can be spent on making independent checks of the validity and practicability of the targets.

The OR analyst is only one of many contributors to the strategic planning process. Essentially, his role is to inform decision makers so as to help them make better judgments. To do this, he should aim to:

- state his assumption clearly;
- offer a range of proposals;
- express the consequences of each proposal in a useful way;
- limit the information he presents to that which the decision makers can readily assimilate.

Of course, these objectives conflict, but they do offer yardsticks against which to judge different methods.

Health care planning is a process of rationing scarce resources. It is impossible to meet all the demands made on the health care system, and some process must be found for distributing resources to the services in a rational way.

Unlike the projective approach, the guideline-based methods attempt to break out of the circle of supply based largely upon current and past provision; the guidelines are determined by other factors as well.

Many of the objections to the guideline-based approach centre on weaknesses in the guidelines themselves.

(a) The assumptions upon which many of the guidelines are based may remain hidden. Supporting studies of quantification should be made explicit. If a guideline cannot be supported in this way, it should be reassessed.

(b) Guidelines may become out of date because guidelines rarely change. Pressure groups will provide local reaction to the guidelines, while the local planning system offers a more formal channel of feedback to the ministry.

(c) The guidelines are generally too simple in form. A bare statement, such as "provide 'x' beds, staff or places per 1 000 population", tells the planner little or nothing about:

- how to allow for local variations in demographic factors or in local practices;
- the kinds of patient to which the guideline applies and those to which it does not apply;
- how (or whether) the guideline will change with time.

More elaborate guidance designed to give the planner information of this kind would help him to use the guidelines more flexibly.

TIME: 1 day

(4) Programming methods: inferred-worth model and DRAM 3:

(a) categories of patient;

(b) modes of care;

(c) ideal standards;

(d) cover of population;

(e) intermediate outputs;

(f) levels of control;

(g) financial constraints;

(h) advantages and drawbacks.

The framework of the models imposes a discipline which its customers have found useful. Thus:

- the use of clearly defined categories provides a common language in which local authorities have been able to discuss joint planning;
- the definition of alternative modes of care makes explicit to planners and field workers alike the strong interaction between the services;
- the collection of data and the setting of modes of care and ideal standards makes staff think in a fresh and systematic way about the clients for whom they are caring;
- the modes and categories are defined in enough detail to give the planning problem real meaning to the field worker, who often has difficulty in relating to the aggregated resource levels inherent in the normative approach; consequently, his involvement in the planning process is greater.

The ideals (of cover and levels of care) towards which the model strives have all been set or accepted by local professional advisers and planners. In contrast, the ideals of the guidelines are imposed from without (by the ministry). Because of this, local field workers accept the ideal standards of balance of care (BOC) more readily than guidelines.

The model calculates detailed intermediate outputs for each of the care groups, showing what quotas and coverage a given mix of resources will provide. Thus, it offers more information about the nonacute sector than the normative or projective approach - information upon which the decision makers can base judgments about the development of services.

The model recognizes that there are two levels of control over the distribution of resources. Planners can determine how much of a resource will be available in an area as a whole, but it is the way in which field workers choose to allocate the resources available to them which determines the distribution of each resource between client groups. The normative approach ignores this latter level of control. It assumes that the priorities of the planners and the field workers are identical. They may, in fact, be very different. If the planner is unaware of this, his proposals may have consequences quite unlike those he envisages.

Unlike the normative approach, the model formulates proposals (in its optimizing mode) which automatically meet the financial constraint imposed by the user.

Some of the disadvantages of the BOC approach spring from the practical difficulties of using a complex mathematical model. Setting up and running the model demands considerable effort from both its users and its customers. Computing costs can be high. In addition, customers have difficulty in understanding the model fully. Consequently, they must rely on the OR team's interpretation of BOC results. This need to trust others may at times make it more difficult for the customer to accept and implement the results.

One of the greatest values of BOC lies in its consideration of alternative modes of care. Where alternative modes do not exist - and for many parts of the acute services there is no alternative to inpatient care - BOC's value is greatly reduced. It can still provide intermediate outputs and, with variable cover, could explore the balance between lengths of stay and hospitalization rates, but there are other simpler models which can do this equally well.

One such model is the DRAM. Using Lagrange multiplier techniques, the IIASA has developed a model which simulates the response of the acute hospital services to changes in the supply of beds. The model predicts how the number and average length of stay of patients with different diseases will change as the number of beds available varies. Thus, it could be used to calculate intermediate outputs for the acute sector which would complement those produced by the BOC model for the chronic care services. The low level of interaction between the two sectors means that the two models could be used independently to evaluate the total HPSS at area level.

MODULE 3: For senior administrators in national ministries, including medical and other health personnel

Teaching objectives

The major planning problems of the health and community services are complex, involved and characterized by a multiplicity of participating interests, uncertainties and conflicts between

poorly defined objectives. Theoretical developments will be described on certain aspects of the planning processes: forecasting, decision taking, uncertainty and multi-objective programming.

Topics to be covered

Capital plans

In generating a capital plan, it is necessary to:

- list the options for closures, change of use and construction of new buildings;
- evaluate the capital cost of each option;
- incorporate the effect of any maintenance backlog;
- examine the robustness of each option in relation to uncertainties in future population, medical practice, etc.

Manpower planning

In general, about 70% of a health services budget is spent upon salaries, and rising unit costs are often the consequence of increased staffing. Information on how future costs and manpower requirements are related is needed by management in its attempts to control expenditure. A strategy may cost too much. Estimates of how each staff group contributes to the overall cost are useful to the decision maker in determining which proposals for service development should be accepted.

Community care versus institutional care

It is now the case that a range of patients/clients can be cared for either in the community or in institutions. Examples are the elderly, the mentally or physically handicapped and some mentally ill patients. To keep costs within certain limits, criteria must be established for:

- the numbers to be cared for;
- the model of care and the standard of care;
- resolving the problem of competition between the groups for similar resources.

These can be explored by means of a BOC type model in two ways.

(a) Simulation. The model estimates the likely response of the system to a specific mix of resources. The numbers of beds, home nurses, etc., are fixed inputs. The model allocates categories of patient to modes of care (and hence resources to client groups) so as to maximize a worth function which, while pushing the pattern of use of services towards a minimum-cost solution, attempts to reproduce the priorities that field workers are observed to exhibit when rationing resources which are inadequate to achieve such a solution.

(b) Optimization. Again, the model maximizes the same worth function, but this time the mix of resources is allowed to vary subject to some overall financial constraint and the model selects a cost-effective resource mix.

How should such runs be interpreted? The process could be repeated in a cyclical manner. The team would agree on an initial set of assumptions and use the model to calculate service and resource consequences. It would then review the results, change the assumptions and calculate new consequences. This process would be repeated until the team members were satisfied that they had adequately explored the options open to them.

We can divide strategic studies intc two kinds according to their approach to setting targets.

(a) Predictive methods indicate what is likely to happen to a health care system in future. Often, the forecasts are based upon an extrapolation of current national trends. If he accepts such forecasts as unconstrained targets, the analyst must make the assumption that current (and past) services in the average area are acceptable.

(b) Prescriptive methods indicate what should happen to the health care system in future. In general, the burden of making these prescriptive judgments is laid upon professional advisers, who, with or without the aid of background research, set standards of provision for the services.

Discuss the applicability of these methods.

Comprehensive planning

A corporate planning approach takes the view that strategic planning is a process of rationing scarce health care resources subject to some overall financial constraints. Thus:

- this rationing of resources (between, for example, acute hospital services and the long-term care of the elderly) is ultimately a political judgment;
- those who must make these political judgments can make better decisions if they are told in advance of the likely consequences of each of the options facing them;
- if the rationing is to be done properly, the decision maker must examine the consequences for all services in the area and not just a selection of them;
- financial and service planning must be done together; the financial budget is a key constraint in two ways - it indicates whether a plan is practicable and, at the same time, makes explicit to the clinician the consequences for other services (with perhaps more pressing needs) of any demands for extra resources which he might make.

The decision maker must choose from a range of options in developing a strategic plan for changing the health care system. It is useful to distinguish two ways of expressing the consequence of these changes:

(a) at the lowest level, a plan may simply specify changes in inputs - for example, it may propose 50 more day-hospital places for the mentally ill, 20 more home nurses for the elderly, etc.;

(b) increasing the number of elderly clients receiving domiciliary support from A to B or raising the number of nurses per inpatient from X to Y are changes in intermediate outputs of the services which directly affect the level of patient care; the costs of services or of the workload on supporting departments are also intermediate outputs, but these we label as indirect.

Ideally, a plan would specify changes in some final output which indicated how the health status of the population might be expected to rise in response to improved services. Unfortunately, this is not a statement which can be made about current plans. The prototype measures of health status which have been developed are difficult to apply. More seriously, the relationship between these measures and changes in the inputs to the health care system is almost completely undefined. For the foreseeable future, therefore, the planner must be content to express the consequences of his proposals in terms of inputs and intermediate outputs.

Discuss the validity and implications of these assertions.

Teaching methods

It is suggested that group discussion is the method most appropriate to the high-level participants for which this module is designed. Again, the ratio between group leader and participants should be about 1:6, and each topic should take half a day. An ideal arrangement would be to assemble in the late afternoon on Friday and disperse Monday morning. On the Friday evening, an introduction (from the Lisbon working group[a] report) could be given and a short scenario on each topic could be distributed. There would be no syllabus as such.

EVALUATION OF THE MODULES

1. A short questionnaire could be given to the different courses in two parts. Part 1 would be designed to establish what was expected from the module and also what was the individual's requirement. It would be completed on arrival. Part 2, to be completed at the end, would be designed to establish the usefulness and relevance of the content to the function of the participants and to ascertain whether new insights were gained.

2. Of greater importance is the desirability of trying to obtain a six-month follow-up by requesting from all participants the following detailed information on any projects undertaken or commissioned:

[a] op. cit.

- the title of the project;
- the names of team members;
- the starting and finishing dates of the project;
- references to major reports produced;
- an estimate of the number of man-weeks of OR effort involved;
- an indication of the presenting symptoms and, where they are different, the underlying problems;
- an outline of the method used and any important results or recommendations;
- where possible, the outcome of the project.

This will be difficult but should be attempted; a project should be included if the participant was affected by it. Whichever evaluation is used, any conclusions should be transmitted to those participating.

Annex V

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